

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO  
M & G Resins USA, LLC

AUTHORIZING THE OPERATION OF  
Combined Heat and Power Plant  
Electric Services

LOCATED AT  
Nueces County, Texas  
Latitude 27° 50' 8" Longitude 97° 29' 38"  
Regulated Entity Number: RN106631427

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: 03811 Issuance Date: April 20, 2017



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For the Commission

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## **General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

## **Special Terms and Conditions:**

### **Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting**

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
  - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

- D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
  - E. Emission units subject to 40 CFR Part 63, Subpart YYYY and DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.1080 and § 113.1130 which incorporates the 40 CFR Part 63 Subpart by reference.
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
- A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
    - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
    - (ii) Title 30 TAC § 111.111(a)(1)(E)
    - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

- (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:
- (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
  - (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
  - (3) Records of all observations shall be maintained.
  - (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer’s eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

- (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)
- (iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
  - (1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the

air emission source or enclosed facility is not operating for the entire quarter.

- (2) Records of all observations shall be maintained.
- (3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (4) Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader

- C. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions

Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

- D. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
  - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
  - (ii) Sources with an effective stack height ( $h_e$ ) less than the standard effective stack height ( $H_e$ ), must reduce the allowable emission level by multiplying it by  $[h_e/H_e]^2$  as required in 30 TAC § 111.151(b)
  - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
  - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)
  - G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
- 5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

#### **Additional Monitoring Requirements**

- 6. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in



particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

#### **New Source Review Authorization Requirements**

7. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
  - A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield
8. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
9. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

#### **Compliance Requirements**

10. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
11. Use of Discrete Emission Credits to comply with the applicable requirements:
  - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

- (i) Title 30 TAC Chapter 115
  - (ii) Title 30 TAC Chapter 117
  - (iii) If applicable, offsets for Title 30 TAC Chapter 116
  - (iv) Temporarily exceed state NSR permit allowables
- B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
- (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
  - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
  - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
  - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
  - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

#### **Permit Location**

12. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

## **Attachments**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**New Source Review Authorization References**

**Applicable Requirements Summary**

**Unit Summary ..... 11**

**Applicable Requirements Summary ..... 12**

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
CTG/HRSG	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
CTG/HRSG	STATIONARY TURBINES	N/A	60KKKK	40 CFR Part 60, Subpart KKKK	No changing attributes.
CTG/HRSG	STATIONARY TURBINES	N/A	63YYYY	40 CFR Part 63, Subpart YYYY	No changing attributes.
CTLOV	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R115-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
STMBLR1	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db	40 CFR Part 60, Subpart Db	No changing attributes.
STMBLR1	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
STMBLR2	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db	40 CFR Part 60, Subpart Db	No changing attributes.
STMBLR2	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.
STMBLR3	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db	40 CFR Part 60, Subpart Db	No changing attributes.
STMBLR3	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD	40 CFR Part 63, Subpart DDDDD	No changing attributes.

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
CTG/HRSG	EP	R111-1	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
CTG/HRSG	EU	60KKKK	NO <sub>x</sub>	40 CFR Part 60, Subpart KKKK	§ 60.4320(a)-Table 1 § 60.4320(a) § 60.4320(b) § 60.4333(a) § 60.4335(b)(1) [G]§ 60.4345	Turbines operating at less than 75 percent of peak load, or turbines operating at temperatures less than 0 degrees F with greater than 30 MW output must meet the nitrogen oxides emission standard of 96 ppm at 15 percent O <sub>2</sub> .	§ 60.4335(b)(1) [G]§ 60.4345 § 60.4350(a) § 60.4350(b) § 60.4350(c) § 60.4350(d) § 60.4350(e) § 60.4350(f) § 60.4350(h) [G]§ 60.4400(a) § 60.4400(b) § 60.4400(b)(1) § 60.4400(b)(2) § 60.4400(b)(4) § 60.4400(b)(5) § 60.4400(b)(6) [G]§ 60.4405	[G]§ 60.4345 § 60.4350(b)	[G]§ 60.4345 § 60.4350(d) § 60.4375(a) § 60.4380 [G]§ 60.4380(b) § 60.4395
CTG/HRSG	EU	60KKKK	SO <sub>2</sub>	40 CFR Part 60, Subpart KKKK	§ 60.4330(a)(2) § 60.4333(a)	You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO <sub>2</sub> /J (0.060 lb SO <sub>2</sub> /MMBtu) heat input. If your turbine simultaneously fires	§ 60.4365 § 60.4365(a) § 60.4415(a) § 60.4415(a)(1) § 60.4415(a)(1)(ii)	§ 60.4365(a)	§ 60.4375(a)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						multiple fuels, each fuel must meet this requirement.			
CTG/HRSG	EU	63YYYY	112(B) HAPS	40 CFR Part 63, Subpart YYYY	§ 63.6095(d)	If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance.	None	None	§ 63.6145(a) § 63.6145(b) § 63.6145(c) § 63.6145(d)
CTLOV	EP	R115-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(b)(2)(A) § 115.127(b)(2)	A vent gas stream having a combined weight of the VOC or classes of compounds specified in §115.121(b)(2) and (3) of this title equal to or less than 100 pounds in any continuous 24-hour period is exempt from the requirements of §115.121(b) of this title.	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
STMBLR1	EU	60Db	SO <sub>2</sub>	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO <sub>2</sub> emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO <sub>2</sub> emissions limit in §60.42b(k)(1).	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) § 60.49b(r)(1)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) § 60.49b(r)(1)
STMBLR1	EU	60Db	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
STMBLR1	EU	60Db	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
STMBLR1	EU	60Db	NO <sub>x</sub>	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(4) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(h)(4) § 60.49b(i)



### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						affected facility meets the specified requirements.	§ 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f) § 60.48b(g)(1)		§ 60.49b(v) § 60.49b(w)
STMBLR1	EU	63DDDD D	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
STMBLR2	EU	60Db	SO <sub>2</sub>	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO <sub>2</sub> emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO <sub>2</sub> emissions limit in §60.42b(k)(1).	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) § 60.49b(r)(1)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) § 60.49b(r)(1)
STMBLR2	EU	60Db	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
STMBLR2	EU	60Db	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
STMBLR2	EU	60Db	NO <sub>x</sub>	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified requirements.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(4) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f) § 60.48b(g)(1)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(h)(4) § 60.49b(i) § 60.49b(v) § 60.49b(w)
STMBLR2	EU	63DDDD D	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
STMBLR3	EU	60Db	SO <sub>2</sub>	40 CFR Part 60, Subpart Db	§ 60.42b(k)(2)	Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO <sub>2</sub> emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO <sub>2</sub> emissions limit in §60.42b(k)(1).	§ 60.47b(f)	§ 60.45b(k) § 60.49b(o) § 60.49b(r) § 60.49b(r)(1)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(r) § 60.49b(r)(1)
STMBLR3	EU	60Db	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
STMBLR3	EU	60Db	PM (OPACITY)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
STMBLR3	EU	60Db	NO <sub>x</sub>	40 CFR Part 60, Subpart Db	§ 60.44b(l)(1) § 60.44b(h) § 60.44b(i) § 60.46b(a)	Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified requirements.	§ 60.46b(c) § 60.46b(e) § 60.46b(e)(1) § 60.46b(e)(4) [G]§ 60.48b(b) § 60.48b(c) § 60.48b(d) § 60.48b(e) [G]§ 60.48b(e)(2) § 60.48b(e)(3) § 60.48b(f) § 60.48b(g)(1)	[G]§ 60.48b(b) § 60.48b(c) [G]§ 60.49b(d) [G]§ 60.49b(g) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3) § 60.49b(b) § 60.49b(h) § 60.49b(h)(4) § 60.49b(i) § 60.49b(v) § 60.49b(w)
STMBLR3	EU	63DDDD D	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD

**Additional Monitoring Requirements**

**Periodic Monitoring Summary ..... 20**

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: CTG/HRSG	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R111-1
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Fuel Type	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: Firing of an alternative fuel, either alone or in combination with specified fuel (pipeline quality natural gas) containing no more than 1.0 gr total sulfur per 100 dscf.	
Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation.	

**New Source Review Authorization References**

<b>New Source Review Authorization References.....</b>	<b>22</b>
<b>New Source Review Authorization References by Emission Unit .....</b>	<b>23</b>

### New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX1354	Issuance Date: 12/15/2016
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 108819	Issuance Date: 12/15/2016
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.227	Version No./Date: 09/04/2000
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.265	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001



### **New Source Review Authorization References by Emissions Unit**

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

<b>Unit/Group/Process ID No.</b>	<b>Emission Unit Name/Description</b>	<b>New Source Review Authorization</b>
CTG/HRSG	GE LM-6000 NATURAL GAS TURBINE	108819, PSDTX1354
CTLOV	COMBUSTION TURBINE LUBE OIL VENT	108819, PSDTX1354
STMBLR1	STEAM BOILER 1	108819, PSDTX1354
STMBLR2	STEAM BOILER 2	108819, PSDTX1354
STMBLR3	STEAM BOILER 3	108819, PSDTX1354

**Appendix A**

<b>Acronym List .....</b>	<b>25</b>
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## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM .....	actual cubic feet per minute
AMOC .....	alternate means of control
ARP .....	Acid Rain Program
ASTM .....	American Society of Testing and Materials
B/PA .....	Beaumont/Port Arthur (nonattainment area)
CAM .....	Compliance Assurance Monitoring
CD .....	control device
COMS .....	continuous opacity monitoring system
CVS .....	closed-vent system
D/FW .....	Dallas/Fort Worth (nonattainment area)
DR .....	Designated Representative
ELP .....	El Paso (nonattainment area)
EP .....	emission point
EPA .....	U.S. Environmental Protection Agency
EU .....	emission unit
FCAA Amendments .....	Federal Clean Air Act Amendments
FOP .....	federal operating permit
GF .....	grandfathered
gr/100 scf .....	grains per 100 standard cubic feet
HAP .....	hazardous air pollutant
H/G/B .....	Houston/Galveston/Brazoria (nonattainment area)
H <sub>2</sub> S .....	hydrogen sulfide
ID No. ....	identification number
lb/hr .....	pound(s) per hour
MMBtu/hr .....	Million British thermal units per hour
MRRT .....	monitoring, recordkeeping, reporting, and testing
NA .....	nonattainment
N/A .....	not applicable
NADB .....	National Allowance Data Base
NO <sub>x</sub> .....	nitrogen oxides
NSPS .....	New Source Performance Standard (40 CFR Part 60)
NSR .....	New Source Review
ORIS .....	Office of Regulatory Information Systems
Pb .....	lead
PBR .....	Permit By Rule
PM .....	particulate matter
ppmv .....	parts per million by volume
PSD .....	prevention of significant deterioration
RO .....	Responsible Official
SO <sub>2</sub> .....	sulfur dioxide
TCEQ .....	Texas Commission on Environmental Quality
TSP .....	total suspended particulate
TVP .....	true vapor pressure
U.S.C. ....	United States Code
VOC .....	volatile organic compound

## **Appendix B**

<b>Major NSR Summary Table .....</b>	<b>27</b>
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Major NSR Summary Table

Permit Number: 108819 / PSDTX1354			Issuance Date: 12/15/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
CTG	GE LM6000 Natural Gas Turbine and 263 MMBtu/hr Duct Burner	NO <sub>x</sub>	5.43	33.05	2, 8, 9, 13, 14, 15, 16, 17	2, 8, 9, 13, 14, 15, 16, 18, 20, 21	2, 13, 14
		NO <sub>x</sub> (MSS)	47.02	-			
		CO	6.61	76.82			
		CO (MSS)	203.59	-			
		VOC	3.78	18.56			
		VOC (MSS)	15.00	-			
		SO <sub>2</sub>	2.09	8.70			
		PM	8.24	34.98			
		PM <sub>10</sub>	8.24	34.98			
		PM <sub>2.5</sub>	8.24	34.98			
		H <sub>2</sub> SO <sub>4</sub>	1.12	4.66			
		NH <sub>3</sub>	10.06	41.80			
CTLOV	Combustion Turbine Lube Oil Vent	VOC	0.01	0.05		21	
		PM	0.01	0.05			
		PM <sub>10</sub>	0.01	0.05			
		PM <sub>2.5</sub>	0.01	0.05			
E139	FINs: Steam Boiler 1 Steam Boiler 2 Steam Boiler 3  235 MMBtu/hr each  (6)	NO <sub>x</sub>	7.05	33.62	2, 8, 9, 13, 14, 15, 16, 17	2, 8, 9, 13, 14, 15, 16, 18, 20, 21	2, 13, 14
		NO <sub>x</sub> (MSS)	6.01	-			
		CO	26.60	116.52			
		VOC	3.12	17.11			
		VOC (MSS)	5.63	-			
		SO <sub>2</sub>	1.97	8.64			
		PM	5.14	22.52			
		PM <sub>10</sub>	5.14	22.52			
		PM <sub>2.5</sub>	5.14	22.52			
		H <sub>2</sub> SO <sub>4</sub>	0.30	1.32			
		NH <sub>3</sub>	3.23	14.17			
NG-FUG	Natural Gas Fugitive Emissions (7)	VOC	0.13	0.57		21	

### Major NSR Summary Table

Permit Number: 108819 / PSDTX1354			Issuance Date: 12/15/2016				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY(4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
NH3-FUG	Ammonia Fugitive Emissions (7)	NH <sub>3</sub>	0.12	0.51	11	11, 21	
MSS-FUG	ILE Maintenance	NO <sub>x</sub>	<0.01	<0.01	9	9, 19, 21	
		CO	<0.01	<0.01			
		VOC	0.27	<0.01			
		PM	0.05	0.01			
		PM <sub>10</sub>	0.05	0.01			
		PM <sub>2.5</sub>	0.05	0.01			
		NH <sub>3</sub>	<0.01	<0.01			

**Footnotes:**

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
 NO<sub>x</sub> - total oxides of nitrogen  
 SO<sub>2</sub> - sulfur dioxide  
 PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented  
 PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented  
 PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter  
 CO - carbon monoxide  
 NH<sub>3</sub> - ammonia  
 H<sub>2</sub>SO<sub>4</sub> - sulfuric acid mist
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Planned maintenance, startup, and shutdown (MSS) lbs/hour emissions for all pollutants are authorized even if not specifically identified as MSS. During any clock hour that includes one or more minutes of planned MSS, that pollutant's maximum hourly emission rate shall apply during that clock hour.
- (6) Only one boiler may be in startup or online SCR maintenance mode at any given time.
- (7) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.



## Texas Commission on Environmental Quality Air Quality Permit

*A Permit Is Hereby Issued To*  
**M & G Resins USA, LLC**  
*Authorizing the Construction and Operation of*  
**Corpus Christi Combined Heat & Power Plant**  
*Located at Corpus Christi, Nueces County, Texas*  
Latitude 27° 50' 8" Longitude -97° 29' 38"

Permits: 108819 and PSDTX1354

Amendment Date: December 15, 2016

Expiration Date: December 2, 2024

A handwritten signature in black ink, appearing to read "R. D. A. Hyle".

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]<sup>1</sup>
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]<sup>1</sup>
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.<sup>1</sup>

<sup>1</sup> Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.



## **Special Conditions**

Permit Numbers 108819 and PSDTX1354

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in the attached table. The annual rates are based on any consecutive 12-month period. This permit authorizes planned maintenance, startup, and shutdown (MSS) activities which comply with the emission limits in the maximum allowable emission rates table (MAERT).

### **Federal Applicability**

2. These facilities shall comply with applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources, Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):
  - A. Subpart A: General Provisions.
  - B. Subpart Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
  - C. Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
  - D. Subpart KKKK: Standards of Performance for Stationary Combustion Turbines.
3. These facilities shall comply with applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories, 40 CFR Part 63:
  - A. Subpart A: General Provisions.
  - B. Subpart ZZZZ: National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

### **Emissions Standards and Operating Specifications**

4. Permittee shall only construct and operate the following facilities in addition to any ancillary facilities identified on the MAERT. **(12/16)**

**Table 1. Permitted Facilities**

<b>Emission Point Number (EPN)</b>	<b>Facilities Other Than Fugitives and MSS Activities</b>
CTG	GE LM6000 Natural Gas-Fired Turbine with Duct Burner
E139	Steam Boiler 1
E139	Steam Boiler 2
E139	Steam Boiler 3

5. In addition to other facilities, this permit authorizes one General Electric LM6000 natural gas fired combustion turbine generator (CTG), EPN CTG, rated at a nominal electric output of 49 megawatts.
6. Heat Input Capacity Limits. **(12/16)**
  - A. The duct burner is limited to a maximum heat input capacity of 263 million British thermal units per hour (MMBtu/hr) based on the higher heating value (HHV) of the fuel fired.
  - B. Steam Boilers 1, 2, and 3 (EPN E139 and Facility Identification Numbers STMBLR1, STMBLR2, and STMBLR3) are limited to a maximum heat input capacity of 235 MMBtu/hr each based on the HHV of the fuel fired.
7. Emissions.
  - A. CTG and Duct Burner are limited to the following emission limits.
    - (1) The concentration of nitrogen oxides (NO<sub>x</sub>) from EPN CTG shall not exceed 2.0 parts per million by volume dry (ppmvd) corrected to 15 percent oxygen (O<sub>2</sub>), on a rolling 24-hour average, subject to the following specifications:
      - (a) Hours of startup and shutdown are excluded.
      - (b) Excess emissions caused by emission events are excluded.
      - (c) Excess emissions during initial or other major burner tuning sessions are excluded. Major tuning sessions are scheduled events, and would occur after the completion of initial construction, a combustor change-out, a

major repair, maintenance to a combustor, or other similar circumstances.

- (2) The concentration of carbon monoxide (CO) from EPN CTG shall not exceed 4.0 ppmvd corrected to 15 percent O<sub>2</sub>, when the CTG is at 80% - 100% load, and 6.0 ppmvd corrected to 15 percent O<sub>2</sub>, when the CTG is at 60% - <80% load, both on a rolling 24 hour average, excluding startup and shutdown.
  - (3) The concentration of ammonia (NH<sub>3</sub>) from EPN CTG shall not exceed 10 ppmvd corrected to 15 percent O<sub>2</sub>, on a rolling 24 hour average.
- B. Each boiler (Steam Boilers 1, 2, and 3) is limited to the following emission limits which apply on an individual basis. **(12/16)**
  - (1) The concentration of NO<sub>x</sub> from the stack shall not exceed 0.01 pound per million British thermal units (lb/MMBtu), on a three hour average, excluding on-line Selective Catalytic Reduction (SCR) maintenance, startup and shutdown.
  - (2) The concentration of CO from the stack shall not exceed 50 ppmvd corrected to 3 percent O<sub>2</sub>, on a three hour average, excluding startup and shutdown.
  - (3) The concentration of NH<sub>3</sub> from the stack shall not exceed 10 ppmvd corrected to 3 percent O<sub>2</sub>, on a rolling 24 hour average.
- 8. Fuel for the CTG, duct burner, and Steam Boilers 1, 2, and 3 is limited to pipeline-quality natural gas containing no more than 1.0 grains total sulfur per 100 dry standard cubic feet on an hourly basis. **(12/16)**

Upon request by the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel, or shall allow air pollution control agency representatives to obtain a sample for analysis.

- 9. Opacity of emissions from EPNs CTG and E139 shall not exceed five percent averaged over a six-minute period from each stack, except that during MSS the opacity may not exceed 15 percent. A determination shall be made during non-MSS operation by first observing for visible emissions while each facility is in normal operation. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point(s). Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70 degree viewing sector or angle in front of the observer such that the proper sun position (at the observer's back) can be maintained for all three emission points. If visible emissions are observed from an emission point, then the opacity shall be determined and documented within 24 hours for that emission point using 40 CFR Part 60, Appendix A, Test Method 9. Observations shall be performed and recorded quarterly. If the opacity exceeds five percent, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation. **(12/16)**

### **Ammonia Handling**

10. The permit holder shall maintain prevention and protection measures for the NH<sub>3</sub> storage system. The NH<sub>3</sub> storage tank area will be marked and protected so as to protect the NH<sub>3</sub> storage area from accidents that could cause a rupture. The aqueous ammonia stored shall have a concentration of less than 20% NH<sub>3</sub> by weight.
11. In addition to the requirements of Special Condition No. 10, the permit holder shall maintain the piping and valves in NH<sub>3</sub> service as follows:
  - A. All operating practices and procedures relating to the handling and storage of NH<sub>3</sub> shall conform to the safety recommendations specified for that compound by guidelines of the American National Standards Institute and the Compressed Gas Association.
  - B. Audio, visual, and olfactory (AVO) checks for NH<sub>3</sub> leaks shall be made once every 12 hours.
  - C. Immediately, but no later than 24 hours upon detection of a leak, following the detection of a leak, plant personnel shall take one or more of the following actions:
    - (1) Locate and isolate the leak, if necessary.
    - (2) Commence repair or replacement of the leaking component.
    - (3) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.

### **Initial Determination of Compliance (12/16)**

12. Sampling ports and platforms shall be incorporated into the design of all exhaust stacks according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.
13. The holder of this permit shall perform stack sampling and other testing as required to establish the actual quantities of air contaminants being emitted into the atmosphere from EPNs CTG and E139 to determine initial compliance with all emission limits established in this permit. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA Reference Methods to be determined during the pretest meeting.

Fuel sampling using the methods and procedures of 40 CFR § 60.4415 may be conducted in lieu of stack sampling for sulfur dioxide (SO<sub>2</sub>) or the permit holder may be exempted from fuel monitoring of SO<sub>2</sub> as provided under 40 CFR § 60.4365(a). If fuel sampling is used, compliance with New Source Performance Standards (NSPS) Subpart KKKK, SO<sub>2</sub> limits shall be based on 100 percent conversion of the sulfur in the fuel to SO<sub>2</sub>. Any deviations from those procedures must be approved by the Executive Director of the TCEQ

prior to sampling. The TCEQ Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.

The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

- A. The TCEQ Corpus Christi Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.
- (6) Procedure used to determine turbine loads during and after the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. A written proposed description of any deviation from sampling procedures specified in permit conditions, or the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the EPA and copied to TCEQ Regional Director.

- B. Air contaminants and diluents to be sampled and analyzed include (but are not limited to)

- (1) For EPN CTG: NO<sub>x</sub>, O<sub>2</sub>, CO, volatile organic compounds, SO<sub>2</sub>, and NH<sub>3</sub>. Fuel sampling using the methods and procedures of 40 CFR § 60.4415 or 40 CFR § 60.4365(a) may be conducted for monitoring SO<sub>2</sub>.
- (2) For EPN E139: NO<sub>x</sub>, CO, NH<sub>3</sub>, and O<sub>2</sub>.

- C. Testing Conditions.

- (1) The turbine and duct burner shall be tested at or above 90% of the maximum load for the given atmospheric conditions at the time of testing. Each tested turbine load shall be identified in the sampling report. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with emission standards found in 40 CFR Part 60, Subpart KKKK.

- (2) Steam Boilers 1, 2, and 3 shall be tested at maximum heat input capacity and in accordance with 40 CFR § 60.46b.
- D. Sampling as required by this condition shall occur within 60 days after achieving the maximum production rate at which the turbine will be operated, but no later than 180 days after initial start-up of each unit. Additional sampling may be required by TCEQ or EPA.
- E. Within 60 days after the completion of the testing and sampling required herein, three copies of the sampling reports shall be distributed as follows:
  - (1) One copy to the TCEQ Corpus Christi Regional Office.
  - (2) One copy to the EPA Region 6 Office, Dallas.

**Continuous Demonstration of Compliance (12/16)**

- 14. The holder of this permit shall install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) to measure and record the concentrations of NO<sub>x</sub>, CO, and diluents (O<sub>2</sub> or carbon dioxide) from EPNs CTG and E139.
  - A. Except as may be referenced in paragraphs B and C of this condition, the CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and data analysis and reporting requirements specified in the applicable Performance Specifications in 40 CFR Part 60, Appendix B. Except as may be referenced in paragraphs B and C of this condition, the CEMS shall follow the monitoring requirements of 40 CFR § 60.13.
  - B. For EPN CTG, the NO<sub>x</sub>/diluent CEMS must be operated according to the methods and procedures as set out in 40 CFR § 60.4345.
  - C. For EPN E139, the NO<sub>x</sub>/diluent CEMS must be operated according to the methods and procedures as set out in 40 CFR § 60.48b.
  - D. The CO CEMS for EPNs CTG and E139 shall meet the appropriate quality assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Each CO monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters if four successive quarterly CGA have been conducted for that four-quarter period. An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur at least two months apart.
  - E. The TCEQ Corpus Christi Regional Office shall be notified at least 21 days prior to any required relative accuracy test audit in order to provide them the opportunity to observe the testing.
  - F. Monitored NO<sub>x</sub> and CO concentrations must be corrected and recorded in dimensional units and averaging times corresponding to the emission limitations in Special Condition No. 7 and the MAERT. Compliance for monitored pollutants is based on this data.

- G. The CEMS shall be operational during 95 percent of the operating hours of the facility, exclusive of the time required for zero and span checks. If this operational criterion is not met for the semiannual reporting period, the holder of this permit shall develop and implement a monitor quality improvement plan. The monitor quality improvement plan shall be developed and submitted to the TCEQ Corpus Christi Regional Office for their approval within six months. The plan should address the downtime issues to improve availability and reliability.
15. The  $\text{NH}_3$  concentration in the stacks of EPNs CTG and E139 shall be tested or calculated according to one of the methods listed below and shall be monitored according to one of the methods listed below. Monitoring  $\text{NH}_3$  slip is only required on days when the SCR unit is in operation.
- A. The permit holder may install and operate a second  $\text{NO}_x$  CEMS probe located before the SCR, upstream of the stack  $\text{NO}_x$  CEMS, which may be used in association with the SCR efficiency and  $\text{NH}_3$  injection rate to estimate  $\text{NH}_3$  slip. This condition shall not be construed to set a minimum  $\text{NO}_x$  reduction efficiency on the SCR unit.
- B. The permit holder may install and operate a dual stream system of  $\text{NO}_x$  CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one  $\text{NO}_x$  CEMS and the other exhaust stream would be routed through a  $\text{NH}_3$  converter to convert  $\text{NH}_3$  to  $\text{NO}_x$  and then to a second  $\text{NO}_x$  CEMS. The  $\text{NH}_3$  slip concentration shall be calculated from the delta between the two  $\text{NO}_x$  CEMS readings (converted and unconverted).
- Any other method used for measuring  $\text{NH}_3$  slip shall require prior approval from the TCEQ Office of Air, Air Permits Division.
16. The holder of this permit shall additionally install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the average hourly natural gas fuel gas consumption of the gas turbine, duct burner, and each boiler. The systems shall be accurate to  $\pm 5.0$  percent of the unit's maximum flow. Calibrations and maintenance must be done according to manufacturer's instructions. Calibrations must occur on a schedule recommended by the manufacturer or once per year in the absence of any recommendation.
17. For EPN E139, the permit holder shall measure  $\text{NO}_x$  and CO emissions based on the  $\text{NO}_x$  and CO CEMS concentration in the common stack, the oxygen percent in the common stack, the combined measured natural gas flow rate to the three boilers, and the use of EPA Method 19. **(12/16)**

### **Maintenance, Startup, and Shutdown**

18. This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities listed in Attachment A, Attachment B, and the MAERT attached to this permit. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that this permit authorizes to be performed. Attachment B

identifies the planned maintenance activities that are non-ILE planned maintenance activities that this permit authorizes to be performed. In addition startup and shutdown of the facilities are authorized subject to the following conditions.

- A. CTG/duct burner.
    - (1) Startup begins when an initial flame detection signal is recorded in the plant's Data Acquisition and Handling System (DAHS) and ends when the turbine reaches emissions compliance status. Startup must not exceed 3 hours.
    - (2) Shutdown begins when the gas turbine output drops below 40% load and ends when a flame detection signal is no longer recorded in the plant's DAHS. Shutdown must not exceed 2 hours.
    - (3) On-line SCR unit maintenance which must not exceed 168 hours per 12-month rolling period.
  - B. Steam Boilers 1, 2, and 3.
    - (1) Startup begins when an initial flame detection signal is recorded in the plant's DAHS and ends when the boiler reaches emissions compliance status. Startup must not exceed 6 hours.
    - (2) Shutdown begins when the boiler load drops below 25% and ends when a flame detection signal is no longer recorded in the plant's DAHS. Shutdown must not exceed 2 hours.
    - (3) On-line SCR unit maintenance must not exceed 168 hours per 12-month rolling period.
19. Compliance with the emissions limits identified in the MAERT for planned maintenance activities attached to this permit may be demonstrated as follows.
- A. For each pollutant emitted during ILE planned maintenance activities (EPN MSS-FUG), the permit holder shall annually confirm the continued validity of the estimated potential to emit represented in the permit application for all ILE planned maintenance activities. The total emissions from all ILE planned maintenance activities (See Attachment A) shall be considered to be no more than the estimated potential to emit for those activities that are represented in the permit application.
  - B. For each pollutant emitted during non-ILE planned maintenance activities (See Attachment B) whose emissions occur through a stack and are measured using a CEMS, the permit holder shall compare the pollutant's short-term (hourly) emissions during the activity, as measured by the CEMS, to the applicable short-term planned SS emissions limit in the MAERT for EPNs CTG and E139.
  - C. For each pollutant emitted during non-ILE planned maintenance activities (See Attachment B) whose emissions occur through a stack, but are not measured using CEMS, the permit holder shall determine the total emissions of the pollutant through the stack that result from such non-ILE planned maintenance for each calendar month.



### **Recordkeeping Requirements (12/16)**

20. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction:
  - A. A copy of this permit.
  - B. Permit application dated February 22, 2013 and subsequent representations submitted to the TCEQ, including the permit application dated June 22, 2015.
  - C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 13 to demonstrate initial compliance.
  - D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.
21. The following information shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:
  - A. The CEMS data of NO<sub>x</sub>, CO, NH<sub>3</sub>, and O<sub>2</sub> emissions from EPNs CTG and E139 reduced to the averaging periods and dimensional units of each individual emission rate to demonstrate compliance with the emission rates listed in Special Condition No. 7 and the MAERT.
  - B. Raw data files of all CEMS data including calibration checks, adjustments, and maintenance performed on these systems.
  - C. Records of dates, times, and duration for startups and shutdowns of the CTG/duct burner and Steam Boilers 1, 2, and 3.
  - D. Records of dates, times, and duration of on-line SCR maintenance, including a monthly record of the number of hours the activity occurred with a summation of those hours on a rolling 12-month basis.
  - E. Records of the amount of natural gas fired hourly in the CTG, duct burner and Steam Boilers 1, 2, and 3.
  - F. Records of visible emissions and opacity observations and any corrective actions taken pursuant to Special Condition No. 9.
  - G. Records of AVO checks and maintenance performed to any piping and valves in NH<sub>3</sub> service pursuant to Special Condition No. 11.
  - H. Records of accidental releases, spills, or venting of NH<sub>3</sub> and the corrective action taken.
  - I. Records of non-ILE activities for EPNs CTG and E139 including date, time, and duration.

- J. Records of hourly emissions based on fuel usage or other process data for pollutants not monitored with a CEMS.
- K. Records to show compliance with the emission limits in the MAERT on a 12 month rolling basis, compiled for the preceding 12 months and ready for inspection no later than the 15<sup>th</sup> day of the current month. This includes summing startup, shutdown, and non-ILE emissions as necessary.

Date: December 15, 2016

**Attachment A**

Permit Number 108819 and PSDTX1354

<b>Inherently Low Emitting Planned Maintenance Activities EPN MSS-FUG</b>					
Planned Maintenance Activity	Emissions (tpy)				
	NO <sub>x</sub>	CO	PM	VOC	NH <sub>3</sub>
Turbine Washing, Unit On-line			0.008		
Air Intake Filter Maintenance			4.93E-06		
Catalyst Handling/Maintenance Annual			0.002		
Ammonia Equipment Maintenance					2.15E-05
Fuel Gas Venting				1.86E-03	
Boiler Tube Cleaning				1.36E-04	
CEMS Calibration	5.97E-07	3.64E-07			
Analytical Equipment				4.35E-05	
Total	<0.01	<0.01	0.011	<0.01	<0.01

Date: December 2, 2014

## Attachment B

Permit Number 108819 and PSDTX1354

Non-Inherently Low Emitting Planned Maintenance Activities							
Planned Maintenance Activity	EPN	Emissions					
		NO <sub>x</sub>	CO	PM	Opacity	VOC	NH <sub>3</sub>
Combustion Turbine Optimization	CTG	X	X	X	X	X	X
SCR Maintenance, Unit On-Line	CTG, E139	X					X

1. Combustion turbine optimization includes, but is not limited to, (i) leak and operability checks (e.g., turbine over-speed tests, troubleshooting), (ii) balancing, and (iii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances.
2. Hourly emissions from these activities will be subject to the hourly emission limit for startup and shutdown activities from gas turbines listed on the attached table entitled "Emission Sources - Maximum Allowable Emissions Rates".

Date: December 15, 2016

# Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 108819 and PSDTX1354

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lbs/hour	TPY (4)
CTG	GE LM6000 Natural Gas Turbine and 263 MMBtu/hr Duct Burner	NO <sub>x</sub>	5.43	33.05
		NO <sub>x</sub> (MSS)	47.02	-
		CO	6.61	76.82
		CO (MSS)	203.59	-
		VOC	3.78	18.56
		VOC (MSS)	15.00	-
		SO <sub>2</sub>	2.09	8.70
		PM	8.24	34.98
		PM <sub>10</sub>	8.24	34.98
		PM <sub>2.5</sub>	8.24	34.98
		H <sub>2</sub> SO <sub>4</sub>	1.12	4.66
		NH <sub>3</sub>	10.06	41.80
CTLOV	Combustion Turbine Lube Oil Vent	VOC	0.01	0.05
		PM	0.01	0.05
		PM <sub>10</sub>	0.01	0.05
		PM <sub>2.5</sub>	0.01	0.05

## Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (5)	
			lbs/hour	TPY (4)
E139	FINs: Steam Boiler 1 Steam Boiler 2 Steam Boiler 3  235 MMBtu/hr each (6)	NO <sub>x</sub>	7.05	33.62
		NO <sub>x</sub> (MSS)	6.01	-
		CO	26.60	116.52
		VOC	3.12	17.11
		VOC (MSS)	5.63	-
		SO <sub>2</sub>	1.97	8.64
		PM	5.14	22.52
		PM <sub>10</sub>	5.14	22.52
		PM <sub>2.5</sub>	5.14	22.52
		H <sub>2</sub> SO <sub>4</sub>	0.30	1.32
		NH <sub>3</sub>	3.23	14.17
NG-FUG	Natural Gas Fugitive Emissions (7)	VOC	0.13	0.57
NH <sub>3</sub> -FUG	Ammonia Fugitive Emissions (7)	NH <sub>3</sub>	0.12	0.51
MSS-FUG	ILE Maintenance	NO <sub>x</sub>	<0.01	<0.01
		CO	<0.01	<0.01
		VOC	0.27	<0.01
		PM	0.05	0.01
		PM <sub>10</sub>	0.05	0.01
		PM <sub>2.5</sub>	0.05	0.01
		NH <sub>3</sub>	<0.01	<0.01

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
 NO<sub>x</sub> - total oxides of nitrogen

Emission Sources - Maximum Allowable Emission Rates

SO <sub>2</sub>	-	sulfur dioxide
PM	-	total particulate matter, suspended in the atmosphere, including PM <sub>10</sub> and PM <sub>2.5</sub> , as represented
PM <sub>10</sub>	-	total particulate matter equal to or less than 10 microns in diameter, including PM <sub>2.5</sub> , as represented
PM <sub>2.5</sub>	-	particulate matter equal to or less than 2.5 microns in diameter
CO	-	carbon monoxide
NH <sub>3</sub>	-	ammonia
H <sub>2</sub> SO <sub>4</sub>	-	sulfuric acid mist

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Planned maintenance, startup, and shutdown (MSS) lbs/hour emissions for all pollutants are authorized even if not specifically identified as MSS. During any clock hour that includes one or more minutes of planned MSS, that pollutant's maximum hourly emission rate shall apply during that clock hour.
- (6) Only one boiler may be in startup or online SCR maintenance mode at any given time.
- (7) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: December 15, 2016